Oral Hygiene in Children Under 3 Years of Age in Yerevan, Armenia: A Qualitative Exploration of Maternal Knowledge, Attitude, Beliefs, and Experience

Professional Publication Framework

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ABSTRACT

Early childhood caries (ECC) is a type of dental caries which affects the infants and preschool children. It is one of the most prevalent diseases among children worldwide. Inadequate parental knowledge, attitudes, and beliefs about oral hygiene in childhood might lead to poor oral hygiene and the development of ECC in their children. The American Academy of Pediatric Dentistry provided guidelines to prevent ECC which include oral health risk assessment, establishment of a dental home, right oral hygiene practices, low dental caries risk posing diet and fluoride usage.

Several studies showed high prevalence of dental caries in Armenian children and poor knowledge among mothers about children’s oral hygiene. This qualitative study aimed to explore the Armenian mothers’ knowledge, attitude, beliefs and experience of their children’s oral hygiene.

The Precede-Proceed model was utilized as the theoretical framework for this study. Six focus group discussions were conducted with mothers of children younger than three years old. To triangulate the study four in-depth interviews were conducted with health care professionals. Direct content analysis was used.

The study showed that although the participants were knowledgeable about dental problems that might appear in oral cavity and appreciated the importance of oral hygiene for oral and overall health, their awareness and believes did not seem to translate into their actual practice. Most of them brushed their own teeth once per day, and only few brushed their children’s teeth daily. The majority of them were not using correct brushing techniques. Also, most of the mothers initiated tooth brushing in their children substantially later than recommended in the current guidelines. The participants reported not maintaining routine dental visits for them or for their children and visiting the dentist when they already had oral health problems.

The most important factors which hindered correct oral hygiene practices in children under age three in this study included lack of parental skills on appropriate tooth brushing in this age group, and confusion regarding the right time for tooth brushing initiation. The factors which prevented mothers from making regular dental visits for them and their children included poor prior experiences with dental care and lack of trust in dentists’ abilities to provide good care and counseling, as well as lack of time and low priority put on dental care by the mothers. Since children at young age frequently visit their pediatricians, both mothers and healthcare providers in this study believed that it should be the pediatricians’ responsibility to provide knowledge and skills on how to take care of the child’s oral health before and after the teeth erupt.

The study findings suggest that correct oral hygiene practices and regular dental visits in children under three years of age could be enhanced through raising awareness of mothers about most recent recommendations on oral hygiene for children in this age group, and teaching them skills to follow the right practices. We recommend exploring the current level of pediatricians’
knowledge of oral hygiene in children, and their ability to communicate the corresponding information and skills to the mothers. We also recommend teaching pediatric dentists correct communication skills to facilitate dental care of children under age three.


**INTRODUCTION:**

*Early Childhood Caries*

Dental caries is a chemical dissolution of the surface of the tooth, resulting from metabolic events on the affected area of the tooth covered by a biofilm (dental plaque)\(^1\). It is a preventable disease if timely appropriate measures are taken\(^2\). Early Childhood Caries (ECC) is used to describe dental caries of infants and preschool children\(^1\). ECC is one of the most prevalent diseases among children\(^3\) and it is a serious public health issue worldwide\(^1\).

Frequent ECC places children at risk to develop caries in their permanent dentition\(^4,5\). ECC can affect children’s overall health and wellbeing\(^3\) and the quality of their lives\(^6\). ECC might cause significant pain which would make it difficult to eat and speak\(^7\), and eventually might become a potentially life-threatening infection that can reduce the overall growth\(^5\). In addition, it could interfere with the students’ learning\(^7\) and school participation\(^8\). It has been reported that more than 51 million school hours are lost each year because of dental issues\(^9\). It has been shown that those children who adopted good oral hygiene habits early in their lives, experience better oral health later on than those who started habits much later in their lives\(^10\).

According to a comprehensive epidemiologic review, ECC prevalence differs between populations, with disadvantaged children being most vulnerable to ECC\(^1\). According to data from the National Health and Nutrition Examination Survey of 2011–2012, 23% of children aged 2–5 years had dental caries in primary teeth in US\(^11\). Epidemiologic data indicate that ECC is particularly prevalent in US preschool children with lower socio-economic status and is often untreated in children under age three\(^12\). In England, 12% of three-year-old children had
experience of obvious tooth decay with one or more teeth extracted or filled because of caries in 2013\textsuperscript{13}.

Current evidence shows that in less developed countries, the prevalence of caries in preschoolers reaches substantially higher proportions\textsuperscript{14,15}. For example, in Philippines the prevalence of ECC in 2003 was 59-92\% among children between ages 2 and 6\textsuperscript{16}, while in Taiwanese children of ages 1 - 6 it was 52.9\% in 2006\textsuperscript{17}. The prevalence of ECC reached 55.1\% in preschool children in Czech republic in 2010\textsuperscript{17}, 40\% in Brazil among children under five in 2007\textsuperscript{16}, and 33\% in Iran among children 26 to 36 months old in 2005\textsuperscript{18}.

Regular consumption of food containing high sugar and the presence of Streptococci mutans bacteria contribute to the development of ECC\textsuperscript{19}. Streptococcus mutans bacteria invade the oral cavity as soon as the teeth start to erupt. Studies show that the bacteria are vertically transmitted from the mother\textsuperscript{20}.

The major risk factors associated with dental caries include inadequate oral hygiene\textsuperscript{6,21}, sugar and sweets consumption\textsuperscript{6,21,22}, specially through soft drinks\textsuperscript{23}, lower socio-economic status\textsuperscript{6}, and unawareness of mothers\textsuperscript{6}.

\textit{Guidelines for ECC prevention}

The European Academy of Pediatric Dentistry (EAPD) published guidelines for ECC prevention in 2008\textsuperscript{24}. The guidelines mostly focus on daily tooth brushing and using smear fluoride toothpaste as soon as teeth erupt. They recommend receiving oral health assessments counseling during the first year of life, with groups or individuals at risk having fluoride varnish applied professionally\textsuperscript{24}. Parents should get dental care for their own teeth and have preventive activities in order to reduce the transmission of Streptococci mutans to their children’s oral
cavity and avoid frequent and on demand feeding of sweet drinks with sweetened baby bottle, especially at night times\textsuperscript{24}.

The American Academy of Pediatric Dentistry (AAPD) has specific recommendations for infants and children’s oral health, which were adopted in 1986 and revised in 2012. The recommendations are the following:

- **Oral health risk assessment:** By six months of age, every child should obtain an oral health risk assessment\textsuperscript{5}.

- **Establishment of a dental home:** By the age 12 months, parents should create a dental home for the infant\textsuperscript{25}. “The dental home is the ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, coordinated, and family-centered way”\textsuperscript{26}. Those children who have a dental home are more likely to receive appropriate preventive oral health care on a routine basis\textsuperscript{25}.

- **Oral hygiene:** As soon as the first primary tooth erupts, the implementation of the oral hygiene measures should be started. The parent should perform twice a day tooth-brushing, by using age-appropriate, soft toothbrush and the application of a fluoridated toothpaste\textsuperscript{5}.

- **Diet:** The AAPD encourages “well-balanced, low caries-risk, and nutrient-dense diets for infants, children, adolescents, and persons with special health care needs”\textsuperscript{27}. ECC risk increases by bottle feeding with milk and ad libitum breast-feeding frequently at night\textsuperscript{28,29}. Feeding juice in a bottle at night, repeated use of sipping cup, and frequent in between snacks and drinks containing sugar also increases caries risk in infants and children\textsuperscript{2,30}.
Fluoride: The AAPD affirms the safety of fluoride and its effectiveness in reducing dental caries by reversing enamel demineralization. Therefore fluoridated toothpaste should be used according to the age of the child (a ‘smear’ ‘rice-size’ amount for children who are younger than three years of age; a ‘pea-size’ amount for children between three and six years old) twice daily for all children. Furthermore topical fluoride application and systematic fluoride administration should be considered for children who are at risk for caries and who drink water deficient of fluoride.

Maternal knowledge, attitude and beliefs about oral hygiene

Children under three years of age are dependent on their parents which leads to unique oral health challenges in this age group. Parents are responsible for creating well established oral-health behaviors in their children through teaching and supervising tooth brushing habit, making the right dietary choices and forming a positive connection with the dental professionals. Inadequate parental knowledge, attitudes, and beliefs about oral hygiene in childhood might lead to poor oral hygiene and subsequently lead to the development of dental caries in their children. It has been shown that children of parents with poor attitudes towards oral health, healthy diet, dental hygiene and child’s dental needs had greater rates of dental caries. Lack of knowledge about oral health has been also shown to be associated with increased risk of dental caries.

A qualitative study conducted among 48 Mexican-American mothers of children aged 10 or younger to explore their initiation of home oral hygiene routines showed that most of the mothers did not initiate oral hygiene practices as recommended by the American Dental Association (ADA). The reasons that the participant mothers indicated for not following the
ADA recommendations are receiving educational messages either after the child passes infancy, receiving them not continuously or not receiving them at all, or other barriers such as child’s cooperation or mother’s belief that only after the child is able to hold the toothbrush without her assistance routine tooth brushing should be initiated. The recommendation of the study was that more oral health education should be directed at Latina mothers who have children of age five and under\textsuperscript{32}.

Another study was conducted in the US to investigate parents’ perceptions, experiences and expectations in order to prevent and manage ECC\textsuperscript{38}. Qualitative semi-structured interviews were conducted with 25 parents who had children between ages 2 and 5 with a dental caries history. The study showed that parents relied on their pediatricians for teaching them the methods of preventing ECC, conducting a preliminary assessment of the oral health and in helping to establish connection between medical and dental care. The authors of the study recommended that pediatricians take on more responsibility in educating parents about recommended oral hygiene practices and accessing early childhood dental care\textsuperscript{38}.

**Situation in Armenia**

Similar to many post-Soviet countries, Armenia does not implement water fluoridation or other nationwide preventive programs\textsuperscript{16}. The dental treatment is free for children under 18 in the public dental clinics\textsuperscript{39}. Also, free dental services for children in Yerevan and some of the Armenian provinces are provided by some non-governmental organizations, including Karagheusian foundation\textsuperscript{40} and Children of Armenia Fund (COAF)\textsuperscript{41}. Private dental clinics for children are mostly concentrated in the capital Yerevan\textsuperscript{42}.
There are no nationwide estimates for the ECC prevalence in Armenia. A pilot study conducted in Yerevan in 2005 found that 61% of the participant mothers had either no or poor oral health knowledge and that 84% of the children needed dental treatment. A study conducted in Tavoush in 2012 found that the Decayed, Missed or Filled teeth (DMFT) indices were 96.8%, 96% and 90.8% among 6 years old, 12 years old, and 15 years old children respectively. Another study conducted in Sisian region of Armenia in 2005 showed that the prevalence of dental caries among children of 12 years of age was 86%. The author of the study suggested that children might not be getting adequate oral hygiene knowledge and skills from their parents, which might be causing the high rates of caries in this population group, and stressed the importance of conducting studies to explore these issues among Armenian parents.

To date, no studies have examined how Armenian parents care for their children’s oral health and whether they are aware of the recommended oral hygiene habits and regular dental visits.

**Conceptual framework**

The *Precede-Proceed* model for health promotion planning and prevention was used to guide the study about the mothers’ knowledge, attitude, beliefs, and experience of oral hygiene practices in their children of age 3 and younger. The main goal of the model is to explain health related behaviors and environments and consequently design and evaluate interventions that are needed to change the behaviors and the living conditions that influence them and their consequences. *PRECEDE* is a diagnostic planning process which consists of five phases; (phase one) social diagnosis, (phase two) epidemiological diagnosis, (phase three) behavioral and environmental diagnosis, (phase four) educational and organizational diagnosis and (phase five) administrative and policy diagnosis (*Figure 1*).
The fourth phase which will be used for this study, identifies the predisposing, reinforcing and enabling factors which might influence the targeted health-related behavior change\(^4\). According to the model, the predisposing factors include knowledge, attitude, beliefs and values that motivate and rationalize the behavior. The enabling factors describe the environmental factors that facilitate particular behaviors through availability; accessibility and affordability. Reinforcing factors include the support and positive/negative feedback from others following the adoption of the behavior which may encourage or discourage continuation of the behavior\(^4\).

**Study objectives:**

The aim of this qualitative study is to explore mothers’ knowledge, attitude, beliefs and experience regarding the oral hygiene of their children under three years of age.

**Objectives:**

-To explore the oral hygiene knowledge, attitude and beliefs of mothers of children under three years of age.

-To describe mothers’ experience of oral hygiene and dental care for themselves and their children under three years of age.
METHODS:

Study design

Qualitative cross-sectional design with directed content analysis was used for the study. The qualitative design allowed exploring the experiences and perspectives of participants in depth. The participants were recruited by purposive and snowball convenience sampling from Yerevan, Armenia. Focus group discussions (FGD) and in-depth interviews were conducted with the recruited participants.

Study participants and sampling

The study population included mothers of children under 3 years of age, pediatric dentists, a general dentist and a public health professional who currently reside in Yerevan, Armenia. The student investigator recruited mothers through purposive and snowball convenience sampling. Three different venues for recruitment were used to increase the diversity in mothers’ demographic and socio-economic backgrounds, including one of the kindergartens in Yerevan, a social network, and friends and acquaintances of the student investigator. The recruitment of the pediatric dentists, the general dentist and the public health professional was done among the acquaintances of the student investigator.

The mothers were informed about the study objectives and FGDs. Those who expressed interest in participation were informed about the available dates and times of FGDs. The recruitment continued until sufficient number of participants for each FGD was enrolled. The in-depth interviews were scheduled according to the convenience of the participants.
**Data collection**

The data collection took place between February and April 2016. Six FGDs were conducted, with five to six mothers of children under three in each group, except for one FGD which included only two participants. Four in-depth interviews were conducted with two pediatric dentists, one general dentist and one public health professional. All FGDs took place in the American University of Armenia. The IDIs took place in the participants’ own dental clinics, working offices, and a quiet teashop.

Both FGDs and the IDIs were conducted using a semi-structured discussion guide (*Appendix 1*). The guide included questions grouped into categories of predisposing, enabling and reinforcing factors for oral hygiene practices in children based on the theoretical framework. The guide from a similar study was used to develop some of the questions in the current instrument. The student investigator further revised and edited guide to ensure compatibility with the Armenian context.

**Ethical considerations**

The Institutional Review Board (IRB) of the American University of Armenia was reviewed and approved the study protocol. Consent form was read to the participants before starting each discussion, and only after everyone’s agreement the discussion was commenced. Interviews were audio recorded only after the approval of the participants. The confidentiality of the participants was maintained by using an ID number for each participant in the final report.

**Data analysis**

The audio-records of both the FGDs and the IDIs were transcribed and translated into English. Deductive concurrent content analysis was utilized to analyze the transcribed FGDs and
the IDIs. The analysis involved coding of words and meaningful phrases to subcategorize common patterns emerging from the data. After 6 FGDs saturation was achieved.

**Maintenance of Rigor**

Several strategies helped to maintain the rigor of the study. Triangulation of the study findings was achieved by the involvement of three different stakeholder groups in the interviews\(^5^2\). The student investigator is a dentist, which helped to enhance the credibility of the study, along with the qualification of the researching team\(^5^2\). In order to prevent researcher bias, the researching team frequently met during data collection to prevent personal bias and preferences\(^5^3\).

**RESULTS:**

**Socio-demographic characteristics**

Overall, 33 people participated in focus group discussions (FGDs) and in-depth interviews (IDIs). The discussions averaged 67 minutes, ranging from 44 to 88 minutes. The interviews took 23 minutes on average, ranging from 15 to 36 minutes.

The mean age of the mothers was 32 years, while for the participants of the IDIs it was 33 years. The IDI participants had 10 years of work experience on average.

*Table 1* describes the demographic characteristics of the mothers and the health care professionals.
Oral hygiene practices

Tooth brushing

The majority of the mothers reported brushing their teeth once per day at night. Some of the participants said that they brush their teeth twice a day; in the morning and at night, while few others do it every time before leaving home and after every meal. Only two respondents reported also brushing their tongue, or using chewing gum after eating. There were some who rinsed their mouths with either antiseptic mouthwashes (Listerine) or with water and others who brushed their teeth after every meal. Few mothers reported using dental floss on a daily basis.

When asked about oral hygiene of their children under three years of age, only few mothers mentioned brushing them regularly. Most of them did it once per day before going to bed. What refers to the initiation of brushing, the majority of the respondents started brushing when their child was approximately one and a half years old, while some started it at the age of three. Only three mothers started taking care of their child’s oral hygiene when their kid was several months old, and as soon as the first tooth erupted.

All those who reported brushing their child’s teeth either did not use tooth paste or used fluoride free tooth paste.

“I brush them in the morning and at night and before I go out of home. For example, before I wear makeup, I first brush my teeth.” 1P4

“We brush [the mother brushes the child’s teeth] ... in general she [the child] doesn't like it in the morning to brush, but we do it at night 100% ... we do it, and that's it.” 1P3
“My older daughter had her first tooth when she was four months and a half and really at her six months I started brushing. It might be funny, but I have done it.” 2P2

**Dental visits**

Very few participants reported routine dental visits for themselves and for their children. The rest of the mothers said that they do dental visits only when a dental problem occurs, or when the child’s permanent teeth start to erupt.

“I know that it must be every six months but I never go. I have never had problems.” 1P4

“Every six months I do it [visit the dentist] … I mark the date of my last visit, and I never let it go [never skip it]…” 1P3

“Actually she [the child] had a problem that's why we took her [to the dentist], I mean she said that "I have pain" and I took her.” 2P2

The IDI participants confirmed this finding by saying that mothers usually bring their children to a dentist only after they see a black spot on the child’s tooth, or when the child is in severe dental pain.

“Again I don't think they take the kids for preventive reasons at a certain age, they will wait until the kid gets a painful tooth and in that case they go to a dentist… never for a preventive visit…” ID1

“…there are parents who wait till it gets complicated, already with a swallowed chick, with pus, they would come at the age of seven or eight…” ID12
Eating and drinking habits

Many mothers mentioned giving their children sweets and chocolates, but in moderate amounts. Very few mothers said that their children drink soft drinks, the ones that do either drink it rarely or add some water to it before drinking. Most of the mothers provide fresh juices to their children during the day, only some mentioned that they occasionally give boxed/canned juices. Although none of the participants gave juices or sweetened milk to their children in the night time, they said they knew other mothers who did.

The health care specialists mentioned that they see many children in their practice who have been drinking sweetened tea and juice throughout the night, which caused dental caries in their front teeth.

“We don't drink lots of coca cola, it happens sometimes, when he wants it, but I tell him "your teeth will get ruined, if you want I can mix it with water and give it to you."” 5P2

“Oh, chocolate, we like it a lot [laughing], but I don't choose the colorful ones, only the dark ones, definitely we eat them every day but we brush after that.” 5P3

“Let's say there are children who would stay until morning with a sweetened bottle right? The bottle in their mouth, which might naturally have a negative effect [on their teeth].” 2P2
Predisposing factors

The predisposing factors are those factors that rationalize and motivate the mothers’ oral health-related behavior, including their knowledge, attitude, beliefs and values about oral hygiene and problems in the oral cavity.

Problems of the oral cavity and oral hygiene

- **Oral cavity problems**

  The participants were aware of the problems in the oral cavity that a child as well as an adult might get. The majority of the mothers mentioned about caries and gingival problems as one of the most common problems of the oral cavity among adults. The participants also pointed out problems inside the oral cavity that are not directly related to teeth such as problems with the mucous membrane and the tonsils. Many respondents thought that one of the reasons they repeatedly have dental problems is genetic inheritance of bad quality teeth from their parents. They believed that since they have bad genes, they will have bad teeth no matter how much they take care of them.

  “Caries, when the enamel is ruined and a pathway arises and bacteria go from there and hurt the tooth, if they [people] don't pay attention it reaches very deeply to the nerves.” 3P1

  “There might be lots of problems, at the location of the gingiva ... ruined teeth and blackness of teeth.... Ruined teeth, caries, gingival infections well that kind of problems, infections ... how do they call it? ... Abscess, and that kind of stuff.” 1P1

  “My front teeth, I used to break them easily, from eating anything, since I was very young, genetically I have had very unsuccessful teeth.” 3P1
The mothers were also aware of the problems that might occur in the oral cavity of children under three years of age. The problems in children’s oral cavity mentioned by mothers were problems related to teeth such as tooth blackness and protrusion of anterior teeth because of thumb sucking. Other problems they mentioned included abscess, stomatitis, recurrent aphthous stomatitis (“white dots on the mucous membrane”) and mechanical harm to the oral cavity from placing sharp objects inside the mouth.

Very few mothers thought that primary teeth do not get affected by any problem, only the permanent teeth do.

“It might be stomatitis, I mean from the tongue, I mean if the child would put a dirty thing in the mouth there would be wounds on the tongue, it would cause soreness.” 5P4

“Mechanical harm…if they put any sharp object in their mouth, the issues that arise from it.” 3P1

“I think that for the primary teeth, nothing, of course, if we limit the sweets, but for the permanent teeth, I think if a little problem arises we should visit the dentist so that the caries wouldn't get deeper.” 3P1

- Importance of primary teeth

Some mothers said that their children’s primary teeth are not that important since they will eventually fall down in a few years. This was one of the reasons for not taking much care of primary teeth. However, there were also others who emphasized their importance to child’s health. For example, they mentioned that primary teeth are important for eating properly, for
pronouncing the letters in the right way, for their effect on the permanent teeth and finally for the esthetical appearance of the child.

On the other hand, the health care specialists who participated in the study said that only few parents know the importance of the primary teeth.

“I haven't seen any importance [in the primary teeth], that's why I haven't done much about it [didn’t take care of her child’s teeth].” 1P3

“It is the first base for the permanent teeth and we should take care of them so that they would stay healthy until they [the children] are 5-6 years old, so that the child would be in good health, and regarding chewing and regarding esthetics, regarding the look, also the speech, for the right development [of the child].” 2P5

“Our experience from areas shows that mothers do not give importance, most of them do not give importance to primary teeth because they know that they're going to... change it [the child will have the permanent teeth instead of the primary ones], they don't care about these teeth, they get rid of them easily.” IDI1

- Oral hygiene

All of the participants recognized the importance of the oral hygiene in general, stating that it is important for the oral health itself which is consequently related to the overall health of their bodies.

“The oral cavity is the mirror of the organism ... there are many diseases that people might learn about by looking at the oral cavity.” 2P4
However, the IDI participants stated that in general the level of knowledge regarding oral hygiene in Armenia is low. Furthermore, they said that the knowledge of mothers largely depends on their level of education.

“...to tell the truth in general not only the mothers but ... [people in the country] have little information about oral hygiene and the health of the oral cavity.” IDI4

“...The level of awareness depends on their level of education... their level of education is different.” IDI2

- **Tooth brushing and flossing**

  The majority of the mothers said that an adult should brush his/her teeth twice a day, while others said that it should be done after every meal. Some thought that teeth should be brushed three times a day. However, in practice, few respondents followed the right routines. Also, only few respondents knew the right tooth brushing techniques. For example, they used downwards motions for the upper teeth and upwards motions for the lower teeth. Several mothers said that they know people who would use incorrect random motions to brush their teeth. Similarly, only some of the mothers knew about the right amount of tooth paste that should be used to brush their teeth. For example, one woman was applying the tooth paste according to the length of the tooth brush bristles. The importance of flossing was largely unknown to the participants, they thought that flossing their teeth might pose harm to their gingiva and they were surprised when they heard that others use dental floss regularly.

  Regarding brushing the child’s teeth, the majority of the mothers knew that brushing should be done twice a day, although they were not doing it for their children. Those who knew
the right way of brushing their own teeth, wanted to brush their child’s teeth the right way as well. However, they were not able to, either because the child was not cooperative, they were afraid to brush the back teeth, or they did not have the skills to hold the child the right way so that the process would be easier for them. Women, who used tooth pastes during brushing their child’s teeth, used only a smear of tooth paste knowing that the child will swallow it. Also, only few mothers knew when the tooth brushing in children should be initiated. Most of the mothers thought that tooth brushing should be initiated after all primary teeth erupt.

“At first she used to swallow that tooth paste, I am even uncomfortable that every time I put it on the tooth brush, I know that she would eat it. She can’t spit.” 3P1

“It is advised to brush twice or three times a day and after each meal…. Naturally, it is also important to focus on the tongue once a day. As I know, the way you brush your teeth as well, which is an important issue that should be taken into consideration. And we should also consider flossing.” 2P2

“Because even if the child will change his teeth in the future, I mean at age 7 at age 6, the tooth will get affected, get decayed, and will surely affect the tooth underneath it, that’s why naturally brushing teeth should start at age one, in my opinion.” 1P5

“No I haven't started to wash them [her eight months old child’s teeth]. They [the teeth] are still very small. Also the ones above aren't erupted yet, that's why we haven't started brushing.” 1P2

“My child is already two years old, she hasn't got the posterior teeth yet…. I have read a lot that we should start brushing the child’s teeth when the first tooth erupts.” 4P6
“Here they [the dentists] give advice right? To start brushing [at three years old], but I know that for example in the United States they say even if only one tooth came out you should brush it, I don't know how much that is right. But here they told me at three.” 2P3

This information concurred with the information provided by the health care specialists who stated that only few parents know the right way of brushing their teeth, which means that they are probably not able to do it correctly for their children.

“Very few people I have met know that they have to use, for example, a pea size tooth paste. They will, most often, they will put along the length of the tooth brush.” IDI1

“We don't have specific statistics, but that I think it is 1% of the parents who would start taking care of their child’s oral hygiene as soon as the first tooth erupts.” IDI4

“…actually, if you could do a statistical study, you would see only few out of 100 who brush teeth in the right way... if they don't brush their teeth the right way they will not brush their children's teeth the right way either.” IDI4

Good and bad foods and beverages

All of the mothers were aware of the foods that are bad for their children’s teeth. They mentioned soft drinks as harmful beverages and many kinds of sweets and junk foods as harmful foods. For example, chocolates, sweets and candies. In addition, they pointed out that drinking hot and cold drinks immediately one after another could also harm the teeth. This high level of awareness was reflected in the actual practice of the participant mothers who reported providing low caries risk foods and beverages to their children.
Almost all of the participants were aware of the foods and beverages that are good for their children’s teeth. The foods specified as good by the respondents included fruits, some vegetables and dairy products. Milk, including breast milk, was the only beverage identified as good for children’s teeth.

“Well, as much as I am aware of, [teeth get ruined] from the chocolate, when they eat lots of sweets, children, it happens form that as well. And when the teeth color gets brown, that also, right? It happens because of chocolate.” 2P3

“I know that for example, carrot, fruits or vegetables that are hard... are healthy, for the strength of the teeth and maybe that they are natural cleaners for teeth.” 1P1

“I think at first the mother's milk and later healthy food that has lots of calcium, well let’s say milk, dairy products, sesame.” 2P2

The IDI participants said that all parents know that sweetened foods and soft drinks are harmful to their children’s teeth; however, some keep giving them to their children.

“They have general information, yes? ... they [parents] are informed that they [children] should eat small amounts of sweets, but still they [parents] provide a lot[of sweets to their children].” IDI3

“Well the parents are informed, that everything containing sugar is harmful, I mean that is very common information that people know about. There are parents who can put limits to it, there are parents who are not able to.” IDI4
Dental protection

Only few mothers knew about dental preventive procedures such as fluoride application by the dentist. Furthermore, all of the respondents answered “no” when they were asked if they have heard about sealant before.

One of the pediatric dentists confirmed that very few mothers request fluoride application for their children.

“Very few [mothers who would request fluoride application to their child’s teeth]. Recently, for example, there was a ten year old child ... he had very healthy teeth, she [the mother] said that I know that fluoride prevents against caries, can we apply it? I was very happy, she brought the child in three visits, we applied fluoride on his teeth and they left.” IDI3

Visiting the dentist

Some of the mothers thought that an adult should visit the dentist once every six months, while several other participants mentioned that it should be done once a year. The majority of the mothers were not certain about the right time for routinely visiting the dentist. They gave various thoughts about different durations; three months, six months, and a year.

“I know that [dental visits should be done] once every three months to clean the calculus and for checkup.” 4P5

“I think once a year is the least [frequency of dental visits] probably. I would say, to go for sure [to the dentist], of course if there aren't any other problems [with the teeth].” 2P1
Trust was an important factor that played a role in women’s decision to visit a dentist. Some mentioned that they built trust toward their dentists because the latter followed international standards in their practice, other mothers said that their dentists give precise description about their dental situation, which is why they trust them.

“I trust him a lot [the dentist], for example my tooth ... is sensitive, when I breath air ... it hurts a little,... he said I would take money from you and treat it, but your tooth doesn't have any problem. Why would we treat it for no reason?” 1P3

Treatment pain and fear of the dentist were mentioned by many mothers as important demotivators for dental visits for themselves and their children. The mothers thought that it would be better to take their child to the dentist for the first time only when the child gets older, saying that at that time he or she would be more mature to tolerate the treatment pain and the fear of the dentist.

Some mothers mentioned that it would make it easier for them to take their child to the dentist if the dentist is a familiar person to either them or someone they know, if he is trustworthy and an expert in his field.

“... but in this age [younger than three years old] to take them for checkup, and then later to make the child feel bad towards the dentist, I think that would not be right.” 3P2

“I haven't taken to the dentist at all, and I want to find someone trustworthy who would also treat the children the right way psychologically ... which is the most important thing.” 6P3
**Enabling factors**

The enabling factors included the environmental factors that facilitate or inhibit mothers’ oral hygiene practices for themselves and for their children.

**Time constraints**

Following correct tooth brushing and dental visit routines by the mothers was difficult for the majority of them, because of the time restrictions. Many working and none working mothers said that they are unable to find the time to routinely visit the dentist for dental checkups. Similarly, during the day they would be either at work or taking care of their children, that is why it would be inconvenient for them to brush their teeth after having a meal.

“...we should brush our teeth after eating, but because probably not everybody is able to do it, it wouldn't be feasible, in the morning and at night before sleeping are the most mandatory” 2P3

The health care professionals confirmed it by stating that women do have time limitations, but they also mentioned that women do not consider their dental issues as a priority.

“... in our society women are very busy, also... they might not give importance to visiting a dentist because of being busy and also because of not giving it a high priority.” IDI1

**Dental visit**

Some mothers mentioned that having a dental clinic close to their homes and having a child friendly atmosphere would facilitate their visits. Only few mothers said that financial support would also motivate them to take their children to the dentist.
The IDI participants said that making the dental clinics part of the primary health care facility would facilitate the parents to visit the dentist on a routine basis. Some said that financial assistance would facilitate the visits, but most thought that the financial issue and the location of the clinic are not the major barriers, rather it is the level of importance that parents attach to that action.

“Why not according to the recent situation, finance [recommending financial support] because going to the dentist is too much [very expensive]... not cheap.” 2P4

“If these dental facilities were in primary health care facilities I think mothers would take their kids anyway.” IDI1

“There might be financial issues here, because the visit [visiting the dentist] is also related to the finance in a way, ... but if it is a priority issue for a person he takes care of his teeth that have a problem, and he would visit the dentist, but if he do not visit then he doesn’t consider it as a priority.” IDI3

Making visits comfortable for children

The mothers mentioned that getting the child familiarized, prior to the dental visit, with the dental instruments and procedures that would take place during the dental treatment through toys and videos which are fun would help them to better react to the treatment.

“That toy ... dental toy, play dough ... helps a lot. There is a head that opens, he [the child] can make the teeth from dough and then he treats the caries with a drill. The dough colors are grey, white and red, he makes tongue, he can make teeth, he played with it a lot and he likes it a lot.” 5P2
Some mentioned that the way the dentist treats the children and talks with them during the dental visits has a big role in their agreement to have other visits with pleasure and without fear.

“...the doctor, primarily the doctor should know how to establish a contact with the child, the way we say it “to find the tongue”.” 2P4

“Naturally it would be very important if he [the dentist] is a good specialist, well, as well the way he [the dentist] treats the kids, that is also very important.” 5P5

“I take her to a pediatric dental clinic, I mean I am satisfied with the dentist who treats my daughter, she has a very good approach with the children, she convince them in a very good way ... let's say if she has to do anesthesia, if at that moment they are scared of the needle, she says "look it freezes the tooth ... look I am placing a bubble gum”. She as a pediatric dentist she has a very good approach with the children.” 2P4

Pediatrician’s role in teaching oral hygiene skills to the mothers

Since almost all of the mothers thought that brushing their child’s teeth is challenging for them, all of them would love to be informed about the correct way of brushing their child’s teeth. The mothers stressed an important role of pediatric dentists, in giving advice and information about child’s oral hygiene. For example, when to start initiating tooth brushing, using with what kind of tooth brush and tooth paste, or how to take care of the oral cavity before any tooth erupts. All but one mother said that pediatricians never gave them any advices about the right way of taking care of their child’s oral hygiene, except for the application of relieving gels during the eruption of the child’s teeth.
Regarding the right time of oral hygiene advices and recommendations by the pediatricians, many mothers preferred receiving it when the child is six months or one year old. Few mothers said that they would prefer it starting from the first day they meet the pediatrician after the child’s birth.

Some participants used internet for making decisions about oral health. Other mothers preferred a dentist to give them an additional explanation or recommendation in addition to the treatment he does. In addition, the participants mentioned many other sources through which they could be educated, including trainings, videos, posters and group discussions.

The health care professionals also said that the information could be spread to mothers through conferences, leaflets, mass media, and internet. But mostly they stressed the important role of pediatricians in giving information to the parents about their child’s oral hygiene practices. They thought that if pediatricians assumed that responsibility, parents would start taking care of their children’s oral hygiene much sooner than they currently do and the dental health in Armenia would improve.

“I think since we take the children regularly to the pediatrician I think the pediatrician's role here is very valuable, to guide us the right way …” 2P2

“… from the first day [to receive oral hygiene information from a pediatrician] and I mean it would be also good if they check the child's teeth and tell us what to do, when to do.” 1P4

“There are special tooth brushes, ones that you would put them on the finger and would clean without toothpaste, the pediatrician as well should talk about it and tell about it, because we
don’t see them at that age, we meet them at older age, if they start taking care of their teeth sooner and if they limit sweets the situation with caries would improve.” ID12

“I wanted to say recent, I mean, time when there is online access and there are many different free resources that a person can get advantage of [the internet] ... but basically a person should know what resources to read.” 4P2

“. . . well if in general if I don’t ask any questions, an additional explanation is not given, general recommendations . . . I ask the questions with fear, considering the time, “I am sorry another thing” [pretending to tell it to the dentist in fear] that way.” 2P1

“...In the kindergartens, it would be a very good idea ... it would be really interesting, organizing small workshops, they [mothers] are relatively of young age, but at the same time they have children. They usually get in touch with people of their age, they are an active group that could be trained and relatively they could train others. In one word there can be that kind of movement, it would be interesting.” 4P4

Reinforcing factors

The reinforcing factors included the rewards and support/discouragement of mothers’ behaviors related to oral hygiene for themselves and their children, provided by dentists, pediatricians, and friends/relatives.

Mothers’ experience with the dentists

Mothers’ own experience of dental visits had an important positive or negative influence on their decision about taking their child to the dentist. The bad experiences were related to pain
and discomfort from treatment and sometimes incomplete treatment by the dentist. Few mothers had bad experience because of improper sterilization of the instruments used by the dentist.

“I used to go to a dentist ... and I was obliged to change that dentist ... because he was hurting me a lot, I have also heard from my surroundings that he is a little harsh dentist, he was a little old in age ... well that is why I wanted to go to another place and I have changed him, I had that kind of experience.” 2P1

On the other hand, some mothers talked about their experience as a positive one since the dentist was the one who identified a dental problem at the early stage prior to occurrence of pain. Two of the mothers said that their dentists usually remind them about their next prophylactic visit date which motivated them to go to their regular dental checkups.

“I am very satisfied, he is a very supportive and good dentist, and also when we go for checkups he states the date and he calls and reminds that we should go and do the checkup.” 2P3

According to the mothers, the quality of their prior experience with the dentists does affect their decisions about taking their children to the dentists.

“I don't want to take him [the child to the dentist] so that they would not do any extractions and they would not cause him any pain.” 3P2

Support from friends, relatives, and other sources

Most of the mothers said that usually they take decisions about their children’s oral and general health themselves, while few said that the grandparents of the children may also be
involved. Some participants felt discouraged to take care of their children’s teeth by people in their surrounding.

“I know that we should take care of them starting from the first tooth, because there are many opinions telling me “she is still very young, why you would do it?” “Why would you pay attention to that?” “She is a child.”” 4P6

“Since we live alone... grandmother, grandfather are not there, or there aren't any other people, when we see that there is a problem we take care of it.” 2P4

**DISCUSSION:**

This qualitative study explored the predisposing, reinforcing and enabling factors to better understand mothers’ knowledge, attitude, beliefs and experience regarding oral hygiene of their children under three years of age. In order to confirm the findings obtained from the mothers, other participants, including pediatric dentists, a general dentist, and a public health professional were also interviewed.

The majority of our participants were not following recommended oral hygiene practices for them and for their children. Most of them brushed their own teeth once per day, and only few brushed their children’s teeth daily. Those who did were not using correct brushing techniques. Also, most of the mothers initiated tooth brushing in their children substantially later than recommended in the current guidelines. The participant mothers were not maintaining routine dental visits for them or for their children and were visiting the dentist when they already
had oral health problems. Yet most of the mothers followed a right diet for their children’s oral health and avoided offering to them sweets, chocolates, and soft drinks.

The participants were knowledgeable about dental caries and other dental problems, gingival diseases and other issues in oral cavity. These findings are consistent with similar studies conducted in the US describing the knowledge of the mothers on oral health in preschool children\textsuperscript{51}. Even the etiology of dental caries was explained by the participants in this study. The participants were also well aware of the importance of oral hygiene for overall health; however, their knowledge did not seem to improve their actual practice. One of the important findings of the study was mothers’ belief in genetic inheritance of bad quality teeth which might be responsible for frequent dental caries in their own or their children’s teeth. Such beliefs might explain why women were not paying much attention to right oral hygiene habits.

In accordance with the literature, most mothers in our study knew the importance of primary teeth for the child’s permanent teeth, her overall health, as well as eating and speech\textsuperscript{51}. Yet the right time of the initiation of tooth brushing and the right frequency and techniques were not clear to most of the mothers. The studies in other countries, including the US showed substantially earlier initiation of tooth brushing routine\textsuperscript{32}.

In our study it was easier for the mothers to brush their child’s teeth at night; however, it was challenging for them to do it in the morning, which conflicts with the results of another study in which mothers mentioned that it is difficult for them to brush their child’s teeth at night because of the sleepiness of the child\textsuperscript{51}. One of the challenges that the mothers of our study mentioned regarding brushing their child’s teeth, which was also reported by other authors\textsuperscript{32} was having an uncooperative child, who is hard to be convinced to brush his or her teeth the way the
mothers wanted to. Swallowing tooth paste by the child, especially if it contained fluoride was a concern to our participants, that is why they either did not use tooth paste during brushing or they used tooth pastes which did not contain fluoride. Similar concern was expressed by mothers in other studies\textsuperscript{38,51}.

Similar to findings from other studies\textsuperscript{43,51}, the respondents in our study were pretty knowledgeable about good and bad effects of different foods on their children’s teeth; however, some mothers offered candies, chocolates and soft drinks to their children. While our participant mothers thought that milk and dairy are good for their children’s teeth, only few mothers in a similar study conducted with Mexican-American mothers thought that milk is safe for their child’s teeth\textsuperscript{32}.

Our respondents were unaware of the time of the child’s first visit to the dentist, or the necessity of preventive visits, which might explain their habit of taking their children to the dentist only after they experience dental caries or other oral health problems. This is similar to the findings of similar studies conducted in the United States and Armenia\textsuperscript{38,43,51}. Another factor which seemed to seriously influence mothers’ decisions about when and how frequently the visits should be made was their fear of dental visits. Many mothers were afraid that the child would experience pain and unpleasantness, and lacked trust in their dentist’s ability to appropriately sterilize the dental instruments, and provide good advice and correct treatment. The mothers’ own negative experience with dental care was influencing their decisions about dental care for their children in our study, which is consistent with the literature\textsuperscript{51}.

In accordance with the literature, the right way of communication with the child by the dentist could facilitate dental visits\textsuperscript{51}. Lack of finances for the visits seemed to be a relatively
minor concern for mothers in our study, while the lack of time was apparently an important barrier to making regular visits. Yet according to the dentists, the most important factor that explains mothers’ behavior is the low priority put by mothers on preventive dental care.

Since children at young age frequently visit their pediatricians, our respondents believed that it is the pediatricians’ responsibility to provide information about oral health, including the knowledge and skills on how to take care of the child’s oral hygiene before and after the teeth erupt, and the first time the child should visit the dentist. This opinion was consistent with the views of the pediatric dentists.

In Armenia pediatricians are not involved in the delivery of oral health related information and skills to mothers, whereas in the US 85% of the pediatricians examine the teeth of children under five years of age, provide them with preventive counseling, and refer them to a dentist. Instead mothers rely on the internet, or on dentists or nurses most familiar to them to get information about oral health, which is consistent with what the participants in similar studies did.

*Study strengths and limitations*

The majority of mothers who agreed to participate in the discussions were familiar to the student investigator, which might have facilitated the open discussion in the focus groups. On the other hand, most of the mothers in the sample had high level of education and socio-economic status, which might limit the generalizability of the findings to the entire Yerevan population. Also, the study included only respondents from Yerevan, which did not give us information about the experience of mothers living in regions.
To our knowledge this was the first qualitative study done in Armenia which explored the knowledge, beliefs, attitude and experience of mothers regarding oral health and hygiene of children under three years of age, and one of the few studies on this topic in the region.

**RECOMMENDATIONS:**

Our study findings suggest that correct oral hygiene practices and regular dental visits in children under three years of age could be enhanced through raising awareness of mothers about most recent recommendations on oral hygiene for children in this age group, and teaching them skills to follow the right practices. This could be done through several venues, including training sessions in kindergartens and policlinics. Most importantly, since pediatricians could play a critical role in improving maternal knowledge and skills in oral hygiene, we recommend conducting a study to explore the current level of pediatricians’ knowledge of oral hygiene in children, and their ability to communicate the corresponding information and skills to the mothers. We also recommend teaching pediatric dentists correct communication skills to facilitate dental visits among children under three years of age.

Future studies should involve women from diverse backgrounds/socio-economic strata to achieve better reflection of actual practices, knowledge, attitudes and beliefs of Armenian mothers regarding both their and their children’s oral hygiene.
References:


Table 1

Socio-demographic characteristics of the mothers and the health care professionals:

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<th>Characteristics</th>
<th>FGD Mothers</th>
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<tr>
<td><strong>Number of family members living in the household, Mean</strong></td>
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</table>

*One mother was a working student*
Figure 1

The PRECEDE-PROCEDE model for health promotion planning and evaluation\textsuperscript{49}
APPENDICES:

Appendix 1

- English and Armenian versions of the focus group discussion with mothers

Place: __________________
Date: __________________
Time: __________________

Hello everyone. My name is Karin. I appreciate your agreement to participate in the study. The discussion is about your attitude, knowledge, beliefs and experience about oral hygiene.

Please feel free to express your opinion. The information provided by you is very important for developing programs to provide better oral health for the generations to come. Everything you say is confidential; your names will be secured and will not be mentioned during the report by any means. All opinions are valuable; there are no right or wrong answers. Please respect each other and do not interrupt while someone is expressing her thoughts. In order not to miss any comments you provide, I would like to audio record the discussion upon your permission.

Can we start?

I would like to start by asking you to answer a few questions about you. (The interviewer will distribute the socio-demographic questions).

Socio-demographic questions:
- Would you please tell me your age? _____
- What is your marital status?
  a) Married □
  b) Divorced □
  c) Widowed □
  d) Single □
• What is the highest level of education you completed?
  a) Basic school ☐
  b) Secondary / High school ☐
  c) Professional technical education ☐
  d) Institute / University or Postgraduate ☐

• What is your current occupational status?
  a) Employed/Self-employment ☐
  b) Seasonal work/migrant ☐
  c) Unemployed ☐
  d) Student ☐

• On average, how much money does your family spend monthly?
  a) Less than 50,000 AMD ☐
  b) From 51,000 to 150,000 AMD ☐
  c) From 151,000 to 300,000 AMD ☐
  d) Above 301,000 AMD ☐
  e) Don’t know / refuse to answer ☐

• How many family members live in your household? _____

  Ice breaker: Please introduce yourself quickly/say a couple of words about yourself.

Predisposing factors
1. What do you think about the importance of oral health? Why is it important? How important is it for overall health?


3. What do you know about the rules of tooth brushing in adults? How often do you think an adult should brush his or her teeth? Once a day, twice or more? Every other day? Before lunch or after lunch?
4. How often an adult should visit the dentist? *How often do you visit the dentist? Why would you go to the dentist?*

5. What experience do you have from going to the dentist? *Was it useful? What was good about going to the dentist? Why? What was bad about it? Why? Did you have pain in your mouth or teeth before you went to the dentist? Did going to the dentist help relief the pain? How challenging for you is going to the dentist?*

6. How did your experience affect your intention to go to the dentist in the future? Your intentions to take your child to the dentist? *Did you change your attitude regarding taking your children to the dentist after your own experience? If yes, what made you change it? (If the parents have older child/children) was there any difference in your approach to dental visits for your older child/children and your younger one (0-3 years old)?*

7. How important do you think are your child’s primary teeth? *Do you think these teeth are important for the child’s health? If yes, why? To eat well? For her/his permanent teeth? For the child’s speech?*

8. How important taking your child to the dentist is? At what age do you think a child should visit the dentist for the first time? *Are parents supposed to take their children to the dentist at a young age? What would be the reason for taking a child to the dentist?*

9. Have you taken your child to the dentist? *If yes, at what age? Why at this age? If not, why? (if the parent have older child/children) Have you taken your older child/children to the dentist? If yes, at what age? Why at this age? If not, why? Do you think taking your child to a dentist will help prevent problems with teeth now or later on?*

10. What do you think about brushing your child’s teeth? *Do you know how to brush your child’s teeth? How often should you brush? How much tooth paste should you use? How important do you think is brushing your child’s teeth? How often do you brush your child’s teeth? If no, why not? Do you follow any guides or advice in brushing your child’s/children’s teeth?*

11. Do you think it is possible for your child to get dental caries? *What kind of problems in oral cavity children under 3 years of age might get? What are the things you know that can prevent your child from having dental caries? What kind of applications or procedures would prevent your child from having dental caries? For example, fluoridation or sealant?*
12. What are food and drinks that you know are bad for your child’s teeth? *That would cause caries to your child’s teeth? How healthy to your child’s teeth do you think is giving him/her a bottle of milk or juice at night? Do you provide it to your child?*

13. What are food and drinks that you know are good for your child’s teeth? *That would not cause caries to your child’s teeth?*

**Enabling factors**

14. What would make it easier for you to look after your child’s teeth? *In particular, to brush their teeth more often? Would you like to be trained on how to do tooth brushing in children? What other skills would you like to receive? E.g. Ways to convince the child to brush his/her teeth, ways to hold the child to ease you to brush his/her teeth.*

15. What would make it easier for you to take your child to the dentist? *Do you know a good dentist you could go to for your child’s dental care? What makes a “good dentist” for you? Would any dentist provide care for your child or you need a pediatric dentist? Where is the dentist office located? Is it comfortable? Is dental care expensive? Time consuming? Would you take your child to the dentist if you had financial support?*

**Reinforcing factors**

16. Who are people that affect the most your decisions regarding your child’s health? *Especially dental issues? (Relatives, friends, role models, popular people from media etc.) Do you ever get any messages about oral hygiene in children from mass media? Would you like to? If yes, where would you like to get such information from?*

17. Do you know about how other mothers in your social circle care for their children’s oral health? *Do you get any advice from them?*

18. Have you visited the pediatrician during the first year of the child? If yes, did the pediatrician give any information about oral hygiene? *What were the recommendations that he/she gave regarding the child’s oral health? How important or helpful it was?*

19. When do you think is the right time for the pediatrician to educate you about the right way of taking care of your child’s teeth? *At which age of the child?*

20. Would like to discuss anything that is related to the topic and we haven’t covered? 

    *Thank you for your time and participation!*
Անվան: Մեսմեն Պատր: Հանրապետությունների համար հայտնի է, որ
համագործակցության համակցությունները իրենց համահարցույցի ուղեցույցը հայտնում են համաձայնեցրած
հետազոտությունների, քանի որ նրանց համար ուշ է,

Իսկում մտնելով այս պարզ քննարկման ընթացքում, տեղեկոտ է, որ հայտնում են համաձայնեցնելու
այս հարցազրույցները ուղեցույց Երկրորդ Համաշխարհային պատերազմի համար են կազմված այդ հարցազրույցների
տեման։ Մեր հետազոտությունները կարևոր են՝ որպեսզի Մասնակցեք 
այս հարցազրույցի մասին հարցերի վերաբերյալ այս հարցազրույցների համար այս հարցազրույցի
մասին հարցերի վերաբերյալ այս հարցազրույցների համար այս հարցազրույցների
մասին հարցերի վերաբերյալ այս հարցազրույցների

Հարց 1: Ռուս ամսաթիվը սկսելը, կխնդրեի լրացնել հետևյալ հարցերը ձեր մասին:

- Անունը: ________________  
- Անունը: ________________  
- Քան: ___________________  

Հարց 2: Չբաց են համագործակցության համար, կկրկրվի տեղեկոտ հարցազրույց

(Հանդիսանում են համագործակցության համար քննարկվող հարցեր)

Համարելու հարցերը:

- Իսկում մտնելով այս պարզ քննարկման ընթացքում, տեղեկոտ է, որ հայտնում են համաձայնեցնելու

- Հարց 3: Օրինակ պատասխանը կարգավորված է կոչված այս հարցազրույցի

- Օրինակ պատասխանը կարգավորված է կոչված այս հարցազրույցի

- Օրինակ պատասխանը կարգավորված է կոչված այս հարցազրույցի

44
a. Հիմնական դպրոց
b. Ավագ դպրոց
c. Միջին մասնագիտական
d. Ինստիտուտ/Համալսարան կամ հետդիպլոմային

• Ո՞րն է Ձեր ներկայիս զբաղվածությունը:
  a. Աշխատում եմ/Սեփական զբաղվածություն
d. Ուսանող

• Ամսական միջինում որքա՞ն գումար է ծախսում Ձեր ընտանիքը:
  a. Ավելիի քիչ քան 50,000 դրամ
d. 301,000 դրամից ավելի
e. Չգիտեմ/Չեմ ուզում ասել

• Քանի՞ անդամներից է բաղկացած Ձեր ընտանիքը: ____

Բուն հարցազրույց

ICE BREAKER: Խնդրում եմ ներկայացեք՝ մի քանի բառով պատմելով Ձեր մասին:

Predisposing factors

1. Ի՞նչ եք կարծում բերանի խոռոչի առողջության կարևորության մասին: Ինչու՞ է դա կարևոր: Ինչ՞ կարևորություն ունի այն ընդհանուր առողջության համար:

2. Մարդիկ ինչպիսի՞ խնդիրներ կարող են ունենալ բերանի խոռոչում: Ատամի կորու՞ստ: Լնդերի արյունահոսությու՞ն: Աբսցե՞ս/թարախակույտ: Կարիե՞ս: Ի՞նչ գիտեք կարիեսի մասին: Այն ազդում է ատամների, թե՞ լնդերի վրա:

3. Ի՞նչ գիտեք մեծահասակների ատամները մաքրելու կանոնների մասին: Ի՞նչ եք կարծում, մեծահասակների ատամը որոնք հաճախ փոխվում է մարդու իրենց մաքրության: Օրի մինչև անցած, ինչպես, թե՞ ինչպես հաճախում: Անհետ գծի ժամանակ, թե՞ համար
4. Որքա՞ն հաճախ մեծահասակները պետք է այցելեն ատամնաբույժի: Որքա՞ն հաճախ եք Դուք այցելում ատամնաբույժի: Ինչի՞ համար կգնայիք ատամնաբույժի: Որքա՞ն հաճախ մեծահասակները պետք է այցելեն ատամնաբույժի:

5. Ատամնաբույժի այցելությունը ի՞նչ փորձ ունեք: Օգտակար է եղել: Ո՞րն էր ատամնաբույժի այցելությունը գլխավոր առավել պլեյսի համար առաջադիմների միջոցով: Ատամնաբույժի գլխավոր մասնագիտությունը գնալը: Որոշ է ատամնաբույժի այցելությունից պայքարել:


7. Հիշենք իմ կրոնը, որքա՞ն մարդը եք ու իր իրենից կարողանանքին հատվել: Վերականգնելու համար: Որքա՞ն հաճախ ապագանքել իմ կրոնն եք: Որքա՞ն հաճախ ապագանքել եք մուկասան կրոնը: Որքա՞ն հաճախ կարողացեք մուկասան կրոնը ապագանքել ու պատճառաբանել:

8. Ատամնաբույժի տանության վերաբերյալ: Երեխայի կաթնատու մները ի՞նչ եք մտադրության վրա: Ձեր սեփական փորձից հետո, փոխել ե՞ք Ձեր վերաբերյալ ատամնաբույժի տանության վերաբերյալ: Եթե այո, ի՞նը ստիպեց Ձեզ փոխել այն: (Եթե ծնողը ունի մեծ և փոքր երեխաներ) Կայի՞ն տարբերություններ Ձեր մեծ և փոքր երեխաների մոտեցումների վերաբերյալ:

9. Ատամնաբույժի այցելության արագությունը երեխայի՝: Եթե այո, ո՞ր տարիքում: Ինչու՞ այդ տարիքում: Եթե ոչ, Ինչու՞: Մեծ երեխայի մոտ ատամնաբույժի տանության վերաբերյալ:

10. Արդյո՞ք հետեւում եք որեւէ ուղեցույցի կամ խորհրդի ձեր երեխայի /երեխաների ատամները խոզանակելու համար: Որքա՞ն հաճախ պետք է խոզանակել ձեր երեխայի ատամները: Որքա՞ն հաճախ պետք է ուղեցույցի կամ խորհրդի ձեր երեխայի ատամները խոզանակել: Որքա՞ն հաճախ պետք է ցույցել ձեր երեխայի ատամնաբույժի: Եթե ոչ, ապա ի՞նձ: Արդյու՞մ էլ հետեւում եք որեւէ ուղեցույցի կամ խորհրդի ձեր երեխայի /երեխաների ատամները խոզանակելու: Ի՞նչ եք մտադրության վրա: Ձեր երեխայի կաթնատու մները ի՞նչ եք մտադրության վրա: Ձեր երեխայի կաթնատու մները կարևոր են երեխայի առողջության համար: Եթե այո, ի՞նը ստիպեց Ձեզ փոխել այն:
11. Enabling factors

12. Enabling factors

13. Enabling factors

14. Enabling factors

15. Enabling factors

16. Enabling factors
17. Do you know, when you and the baby take to the baby bath, how often you use it or do you change it? Can you say how often you use it? If yes, how old is the baby when you change it?

18. Do you know how many other mothers with children of the same age do you think about the hygiene of the baby bath. Do you receive any information from them?

19. If yes, do you know that the baby bath is also washed, can you think how often you wash it, with what materials you wash it, and do you have any problems with it?

20. Do you change the baby bath, if it is used, or do you think it is used with any other type of baby, and how often do you change it?

Thank you for your participation.
• English and Armenian versions for in-depth interviews with health care professionals

Place: __________________
Date: ________________
Time: ________________

Introduction

Hello. My name is Karin. I appreciate your agreement to participate in the study. The discussion is about the attitude, knowledge, beliefs and experience of mothers about oral hygiene of their children.

Please feel free to express your opinion. The information provided by you is very important for developing programs to provide better oral health for the generations to come. Everything you say is confidential; your names will be secured and will not be mentioned during the report by any means. Your opinion is valuable; there are no right or wrong answers. I will take notes throughout the session. In order not to miss any comments you provide, I would like to audio record the discussion upon your permission.

Can we start?

Socio-demographic questions:

• Sex: Male _____ Female_____
• Would you please tell me your age? _____
• How many years of job experience do you have? _____

Main discussion

Can we proceed with recording?

Predisposing factors

1. How informed do you think mothers are about dental problems? Do you think they know about caries? Other conditions? What do they know about it?

2. What do you think about oral hygiene in Armenian population? (And young mothers in particular). Do they follow current guidelines for oral hygiene? What are the current guidelines? For example, how often do you think they brush their teeth?
3. Many mothers knew that they should visit the dentist once every six months. What would you say about it? Do you think they implement it? How often do you think mothers actually visit the dentist? Why do they visit the dentist? If they have toothache? Do you know any mothers that visit for prophylaxis?

4. Many mothers said that going to the dentist is challenging for them, do you think it is true about mothers you meet? Why could it be challenging for them? What feedback do you get from mothers about their experience from going to the dentist?

5. In your opinion, what is the common knowledge/attitude among mothers regarding their children’s primary teeth? For example, during our discussions, some mothers thought that their child’s primary teeth are very important, but some thought they aren’t important at all, they even said that when a tooth is affected by caries or if it is broken they would leave it as it is and wait until it falls down and the permanent tooth erupts.

6. At what age of the child do mothers you meet take their child to visit the dentist for the first time? Are mothers supposed to take their children to the dentist at a young age? What would be the reason for mothers to take a child to the dentist? Is it only when the child complains about toothache? How often should the child visit the dentist? Why?

7. Do you think mothers know about the correct way to brush their child’s teeth? How often do they say, or you think, they brush their child’s teeth? Do they know how much tooth paste to use? Do they know at which age to start? How much tooth paste do they say, or you think they use? Do you think mothers follow any guides or advice in brushing their child’s/children’s teeth?

8. Do you think mothers know about applications or procedures that would prevent their child from having dental caries? For example, fluoridation or sealant? (If yes) How do you think they could learn about it? Do you usually educate them about it? (For the pediatric dentist) Are there any mothers that ask you to apply fluoride or sealant to their child’s teeth? (If yes)Where do you think they get the recommendation from?

9. How educated do you think mothers are about food and drinks that are bad for their child’s teeth? That would cause caries to their child’s teeth? Where do you think they get the information from? For example, is it common for the mothers to give their child a bottle of milk or juice at night? Do you think they know if it is harmful or not?
**Enabling factors**

10. All of the mothers would have loved if they would be trained to brush their child’s teeth in the right way and to know different ways to convince their child to brush his/her teeth, what do you think about it? *What would be the best ways to train the mothers in these skills?*

11. What would make it easier for mothers to take their child to the dentist? *Does knowing a good dentist help?* Most of the mothers said that they would take their child to a good expert. *What do you think are mothers’ expectations of a “good dentist”?* Do you think any dentist would provide care for their child or they need a pediatric dentist? Are there sufficient numbers of pediatric dentists in Armenia/Yerevan? *Are the dental clinics conveniently located?* What about the comfort of the dental office for the child? *Do you think mothers think that dental care is expensive? Time consuming?* Would mothers take their children to the dentists more often if they had financial support?

**Reinforcing factors**

12. All of the mothers said that the pediatricians never gave them information about their child’s oral hygiene during visits except about how to ease the pain during primary teeth eruption, what would you say about it? *How important or helpful do you think this information would be if provided?* What information do you think pediatricians should provide about children’s oral hygiene? *What other sources should be utilized to provide information about child oral hygiene to mothers?*

13. When do you think is the right time for the pediatricians to educate the mothers about the right way of taking care of their child’s teeth? *At which age of the child?*

14. Would you like to discuss anything that is related to the topic and we haven’t covered?

Thank you for your time and participation!
Առողջապահական մասնագետների հետ հարցազրույցի ուղեցույց

Փար։ __________________
Ամսաթիվ: __________________
Ժամ: __________________

Բարև Ձեզ: Իմ անունը Կարին է։ Շնորհակալություն եմ հայտնում, որ համաձայնեցիք մասնակցել այս հետազոտությանը։ Շնորհակալություն եմ իրենից հերցելացված վիճակագրության մայրերի վերաբերմունքի, գիտելիքների և փորձի մասին։

Այսպիսով եմ ապացուցել միասնակցությունը Օրինակով։ Օրինակով մասնակցի ենթադրությանը այս հայտնումը եւ հայտնումը մասնակցի դիմաքալավորմանը պատճառի այս մասին։ Երբ մատչելիս նպատակով, ինչ Օրինակով մասնակցի ենթադրությանը, հասցկությանը մասնակցի կմասնակցի ենթադրությանը անմիջապես և կմասնակցի ենթադրությանը հասցկությանը։ Օրինակով այս պատճառով ենթադրությանը այս մասին։

Այսպիսով եմ այնպիսի առաջարկել, որ Օրինակով մասնակցի ենթադրությանը այս հայտնումը հասցկությանը մասնակցի կմասնակցի իր մասին։

Պետք է խնդրեմ, որ Օրինակով մասնակցի ենթադրությանը այս հայտնումը հասցկությանը մասնակցի իր մասին։

Այսպիսով եմ ապացուծել միասնակցությունը Օրինակով։ Օրինակով այս հայտնումը եւ հայտնումը մասնակցի դիմաքալավորմանը պատճառի այս մասին։ Երբ մատչելիս նպատակով, ինչ Օրինակով մասնակցի ենթադրությանը, հասցկությանը մասնակցի կմասնակցի ենթադրությանը անմիջապես և կմասնակցի ենթադրությանը հասցկությանը։ Օրինակով այս պատճառով ենթադրությանը այս մասին։

Պետք է խնդրեմ, որ Օրինակով մասնակցի ենթադրությանը այս հայտնումը հասցկությանը մասնակցի իր մասին։

Predisposing factors
1. Ինչ եք կասեք Հայաստանի բնակչության բերանի խոռոչի հիգիենայի մասին (մասնավորապես երիտասարդ մայրերի)։ Կարո՞ղ ենք սկսել:

1. Սեռ՝ Արական_____ Իգական_____
2. Խնդրում եմ ասել Ձեր տարիքը: _____
3. Քանի՞ տարվա աշխատանքային փորձ ունեք: ______

Բուն հարցազրույց

Ժողովրդագրական հարցեր

- Անվան Արական Կարին
- Անունը իմ մասին չէ
- Անունը իմ մասին չէ

Այս հարցազրույցը

Այս հարցազրույցը մրցակցել եմ հետազոտության մասին: Այս դիմաքալավորմում մասնակցի ենթադրությանը այս հայտնումը հասցկությանը մասին:

1. Ինչ եք կասեք Հայաստանի բնակչության բերանի խոռոչի հիգիենայի մասի

2. Ինչ կասեք Հայաստանի բնակչության բերանի խոռոչի հիգիենայի մասի
բերանի հիգիենա ուղեցույցի վերաբերվողով որևէ ուղեցույցի ընթացակարգի: Ի՞նչ ներկա ուղեցույցներ կան: Օրինակ, ի՞նչ եք կարծում, որքա՞ն հաճախ են լվանում իրենց ատամները:


4. Գծային կարծիք, որ առանձինաբերվող է պատահ հաճախ է այցել սբուչի գիտեք, ի՞նչ եք կարծում, որ ինչ կարծես այլ հաճախ են այցել: Ի՞նչ եք կարծում, որ երեխան իրենց ատամները, ինչու՞ այտ են ժամանակ, ի՞նչը կարող է պատճառ լինի: Ի՞նչ արձագանք եք ստանում մայրերից այցելու իրենց փորձից:

5. Մայրերը, որոնց դուք հանդիպեք, ի՞նչ տարիքում են երեխային առաջին անգամ տանում ատամ: Արդյո՞ք ք մայրերը պետք է երեխայի ատամի մոտ առաջին տանեն փոքր տարիքում: Ի՞նչ պատճառ ներ՝ մայրերը տանեն երեխայի ատամի մոտ: Արդյո՞ք նրանք հետևում են դրան: Ինչի՞ համար են հաճախ են այցելում ատամ: Արդյո՞ք երեխայի ատամի պատճառ է տեղեկություն, որ երեխան առաջին անգամ տանում է առաջին ատամի մոտ: Ի՞նչ եք կարծում, որ երեխան մինչև պտտում է այցել, այցելու համար ատամը դուրս գա: Շատ մայրեր գրիշելի, որ ատամաբույժի պետք է այցելել յուրաքանչյուր վեց ամիսը մեկ: Ի՞նչ կասեք այդ մասին:

6. Մայրերը, որոնց դուք հանդիպեք, ի՞նչ տարիքում են երեխային առաջին անգամ տանում ատամ: Արդյո՞ք ք մայրերը պետք է երեխայի ատամի մոտ առաջին տանեն փոքր տարիքում: Արդյո՞ք նրանք հետևում են դրան: Ինչի՞ համար են հաճախ են այցելում ատամ: Արդյո՞ք երեխայի ատամի պատճառ է տեղեկություն, որ երեխան առաջին անգամ տանում է առաջին ատամի մոտ: Ի՞նչ եք կարծում, որ երեխան մինչև պտտում է այցել, այցելու համար ատամը դուրս գա: Շատ մայրեր գրիշելի, որ ատամաբույժի պետք է այցելել յուրաքանչյուր վեց ամիսը մեկ: Ի՞նչ կասեք այդ մասին:

7. Մայրերը, որոնց դուք հանդիպեք, ի՞նչ ուղիները նկարագրում են առանձին առանձին տեղեկություններ: Գիտե՞ք իմ կարծիքից, որ հոր հանդիպում են մայրեր առանձին հանդիպումներով իրենց ատամների մոտ: Շատ մայրեր գրիշելի, որ ուղիները նկարագրում են առանձին տեղեկություններ: Գիտե՞ք իմ կարծիքից, որ հոր հանդիպում են մայրեր առանձին հանդիպումներով: Շատ մայրեր գրիշելի, որ ուղիները նկարագրում են առանձին տեղեկություններ: Գիտե՞ք իմ կարծիքից, որ հոր հանդիպում են մայրեր առանձին հանդիպումներով: Շատ մայրեր գրիշելի, որ ուղիները նկարագրում են առանձին տեղեկություն

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Enabling factors

10. Our investigation, however, reveals that most mothers, whether they have a child or not, do understand the importance of professional dental care and that they are more likely to seek professional help when needed. In order to comply with our ethical guidelines, we have sought to present a balanced view of the issues.

11. It is not possible to provide a precise estimate of the number of mothers who have sought professional dental care in the region. However, it is clear that many mothers are aware of the importance of professional care and that they are more likely to seek professional help when needed. In order to comply with our ethical guidelines, we have sought to present a balanced view of the issues.
հաճախ իրենց երեխայի ատամների համար, կորի առաջարկումը պետք է անկումը ստանալու համար: 12. Բոլոր մայրերը ասեցին, որ մանկաբույժները սավառանում են իրենքի թվով ունեն, որս ու մանկաբույժների լիամարման համար ճառագայթված ձեռնարկությունները որոշեն են երեխայի բերանի խոռոչի հիգիենայի մասին բացատրել: Ինչպես պետք է թեթև և ացնել ցավը առաջնային ատամների ծկլթելու դեպքում, ի՞նչ կասեիք այդ մասին: Եթե տրամադրվեն, որքա՞ն կարևոր կամ օգտակար կարող են լինել այդ տեղեկությունները: Ի՞նչ եք կարծում, իսկ ի՞նչ տեղեկություններն ունեն մանկաբույժների համար բույժների թվով ուսումնարար գիտական դպրոցի: Ի՞նչ այլ տեղեկությունները առաջադրեն ուղարկել դեպքում է օգտակար լիամարման, մանկաբույժների թվով ուսումնարար գիտական դպրոցի վերաբերյալ

13. Իրենց երեխայի ատամների համար ճիշտ խնամել իր պապին, երեխայի որ տարիքում: Երեխայի որ տարիքում: 14. Պետք է կնքվի այլ բան, որը կարողանա այս իրենքի համար, դառնալ մուտք արմատ

Հանրապետությունին ճանաչել մանկաբույժների համար:
Appendix 2

- English and Armenian versions of consent forms for mothers

Hello, my name is Karin. I am a dentist and a graduate student in the Master of Public Health program in the School of Public Health at the American University of Armenia.

Within the scope of my thesis project we are conducting a research aiming to explore mothers’ attitude, knowledge, beliefs and experience about oral hygiene of their children under three years of age. You and other mothers who live in Yerevan and who have children ages three and younger have been selected to participate in this study for developing programs to provide better oral health for the generations to come. You have been selected by replying first to my request showing your interest to participate.

Your participation in this study is completely voluntary. Your participation involves only taking part in the interview. You can skip any questions you do not want to answer. You may also terminate the interview at any time. There is no penalty if you refuse to participate in this study. Your participation in the study will pose no risk or direct benefit to you. It will help us to better understand your attitude, knowledge, beliefs and experience about oral hygiene.

The interview will last approximately one hour. If you give your permission we will audio record our interview and take notes during the interview to make sure not to lose any comment you will make. Do you agree with the recording? You are free to ask to stop recording at any point during the interview. If yes, I will turn on the recorder at the start of the interview. If no, we will only take notes with your permission.

The information you provide will not be accessible to any person other than me and my advisors and will be used only for research purposes without revealing your identity. To ensure your privacy any information that could enclose your personality will be destroyed upon the completion of data collection. Notes and final report will not contain any information that could lead to identification of your identity.

In future you can contact co-investigators of this study Dr. Tsovinar Harutyunyan by (060) 61 25 60, if you have any other questions regarding this study even after the interview. If you feel you have not been treated fairly or think you have been hurt by joining the study you should contact Dr. Kristina Akopyan, the Human Subject Protection Administrator of the American University of Armenia (060) 61 25 61.

Before proceeding to the interview I would like to make sure that you are satisfied with the answers to questions you had. Do you have any additional question or comment? Have you received answers to all questions that have interested you?

Do you agree to participate? Thank you. If yes, shall we continue?
Համաձայն պատասխաններ կարող վարվել հանգեցնել վերջնական մենք պահի ձայնագրմանը հետազոտությանը բաց եք ենթարկվում շրջանակներ առողջապահության միաժամանակ հեռախոսահամարով:

1-25 61:

Եթե Ձեր ունեք այս մասնակցության բնակվում մայրերի և հետազոտության բաժնի կողմից ազոտության խոռոչի ձայնագրիչը բացահայտելու կամ ավարտել, լինելու վարք մասնակցության ժամանակ որևէ տեղեկատվության սովորում, Դուք ձեզ պահեք իրենց մասնակցությունը սրտարարության և ուսումնասիրեք այս հետազոտությանը մասնակցեք.

Հեռախոսահամարով կիսահատորված մինչև վառ Ձեր համաձայնությունով մինչև համալսարանի վարք անվաներով տեղափոխմամբ, որպես դասավանդական պահանջարկը դասավանդույթ վերջինը համալսարանի կուրսում համազգային սրտարարության և ինֆորմացիայից կոչնչացվի գրառումներ:

Հրատարակություն ունենսական հիգիենայի և մագիստրոսական թեզի համար, ունենալու հետազոտությունից մեկ հետ և, երբ այս հարցազրույցի վերջին մասնակցությունը մասնակցեք մասնակցության բնակվում մարմինի և մասնակցության վերջին տեղեկատվությունը համալսարանի կուրսում: Դուք ձեզ համաձայնության ձայնագրմանը վերջնական ավարտական գրանցման: Դուք ձեզ մասնակցեք սրտարարության և ինֆորմացիայից կոչնչացվի գրառումներ: Ես այս տեղեկատվությունով այս հետազոտությանը վերելու մակարդակում համալսարանի կուրսում.
Hello, my name is Karin. I am a dentist and a graduate student in the Master of Public Health program in the School of Public Health at the American University of Armenia.

Within the scope of my thesis project we are conducting a research aiming to explore mothers’ attitude, knowledge, beliefs and experience about oral hygiene of their children under three years of age. You as a health care professional who lives in Yerevan have been selected to participate in this study for developing programs to provide better oral health for the generations to come. You have been selected by replying first to my request showing your interest to participate.

Your participation in this study is completely voluntary. Your participation involves only taking part in the interview. You can skip any questions you do not want to answer. You may also terminate the interview at any time. There is no penalty if you refuse to participate in this study. Your participation in the study will pose no risk or direct benefit to you. It will help us to better understand mothers’ attitude, knowledge, beliefs and experience about oral hygiene.

The interview will last approximately half an hour. If you give your permission we will audio record our interview and take notes during the interview to make sure not to lose any comment you will make. Do you agree with the recording? You are free to ask to stop recording at any point during the interview. If yes, I will turn on the recorder at the start of the interview. If no, we will only take notes with your permission.

The information you provide will not be accessible to any person other than me and my advisors and will be used only for research purposes without revealing your identity. To ensure your privacy any information that could enclose your personality will be destroyed upon the completion of data collection. Notes and final report will not contain any information that could lead to identification of your identity.

In future you can contact co-investigators of this study Dr. Tsovinar Harutyunyan by (060) 61 25 60, if you have any other questions regarding this study even after the interview. If you feel you have not been treated fairly or think you have been hurt by joining the study you should contact Dr. Kristina Akopyan, the Human Subject Protection Administrator of the American University of Armenia (060) 61 25 61.

Before proceeding to the interview I would like to make sure that you are satisfied with the answers to questions you had. Do you have any additional question or comment? Have you received answers to all questions that have interested you?

Do you agree to participate? Thank you. If yes, shall we continue?
Այսինքն, եթե Ձեր Հարցազրույցն ողջ է և միայն այս վարկածով է մտնում Այս նպատակին համապատասխան հետազոտության կարգում: Ձեր համար իրավունք ունենալու համար հետազոտության գործողությունները ծավալող ծրագրերի մասին միաբանություն տալով, ովքեր համապատասխան ձեռնարկությունների և ռատում: Քանի որ մնացորդի և առաջարկված վարկածի մեջ է լինելով հետազոտության ամբողջությունը և այսինքն, այս վարկածով է մտնում Այս նպատակին, որպեսզի համապատասխան համապատասխան հետազոտության գործողությունները ծավալող ծրագրերի մասին միաբանություն տալով, ովքեր համապատասխան ձեռնարկությունների և ռատում:

Եթե այս հարցազրույցն ողջ է և միայն այս վարկածով է մտնում Այս նպատակին համապատասխան հետազոտության կարգում: Ձեր համար իրավունք ունենալու համար հետազոտության գործողությունները ծավալող ծրագրերի մասին միաբանություն տալով, ովքեր համապատասխան ձեռնարկությունների և ռատում:

Այս նպատակին միայն այս վարկածով է մտնում Այս նպատակին համապատասխան հետազոտության կարգում: Ձեր համար իրավունք ունենալու համար հետազոտության գործողությունները ծավալող ծրագրերի մասին միաբանություն տալով, ովքեր համապատասխան ձեռնարկությունների և ռատում:

Եթե այս հարցազրույցն ողջ է և միայն այս վարկածով է մտնում Այս նպատակին համապատասխան հետազոտության կարգում: Ձեր համար իրավունք ունենալու համար հետազոտության գործողությունները ծավալող ծրագրերի մասին միաբանություն տալով, ովքեր համապատասխան ձեռնարկությունների և ռատում:

Եթե այս հարցազրույցն ողջ է և միայն այս վարկածով է մտնում Այս նպատակին համապատասխան հետազոտության կարգում: Ձեր համար իրավունք ունենալու համար հետազոտության գործողությունները ծավալող ծրագրերի մասին միաբանություն տալով, ովքեր համապատասխան ձեռնարկությունների և ռատում: